

i-Con – System Controller

The *i-Con* system controller is the brain of the system, which takes the input information and produces the required control output to ensure the best environmental/comfort conditions.



Controller Configuration

- Block A – Zone A temperature inputs, control output connections.
- Block B – Zone B temperature inputs, control output connections.
- Block C – Zone C temperature inputs, control output connections.
- Block D – Zone D temperature inputs, control output connections.
- Block E – 24v dc Power Supply, P-com, GUI Comms connections.
- Block F – Outside Air Sensor, Safety Interlocks, Rain Sensor, Wind Sensor.
- Block G – Zone A, B, C & D Fan Relay output connections
- Block H – Zone A, B, C & D Heating Relay outputs and plant heating call relay output connections.

Specification

- | | |
|---|---|
| ■ Power Supply | 24vdc |
| ■ Mounting | Standard Din Rail |
| ■ Analogue Inputs | NTC 10K |
| ■ Digital Inputs | Volt Free Contacts (VFC) |
| ■ Digital Outputs | Power external relay |
| ■ Analogue Outputs | 0-10v DC |
| ■ Connection to <i>i-Con</i> GUI | 4 Wire cable – Power & Comms (Beldon 8723) |
| ■ Connection to <i>i-Con</i> Room Units | 2 Wire cable – not polarity sensitive (Beldon 8760) |



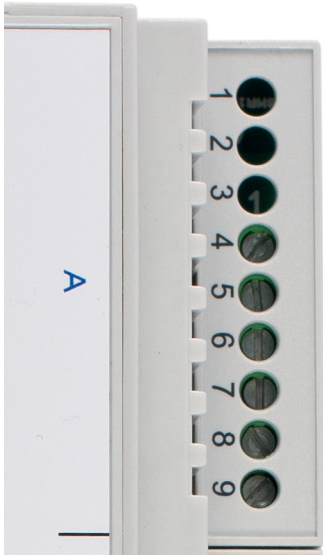
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Wiring Information



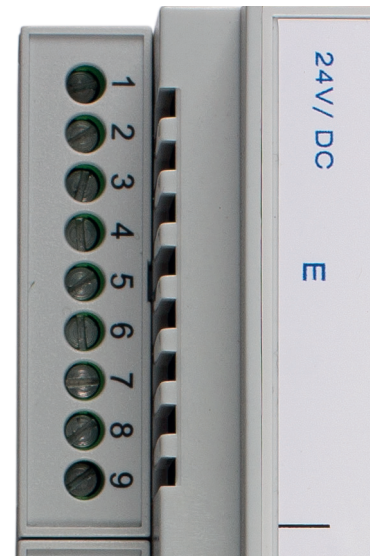
Zone A Connections

Terminal Block A	Function	Electrical Data
1,2 & 3	Not used	N/A
4	Common	0v/Gnd
5	Reheat Vent Coil Temperature Sensor	NTC 10K
6	Low Level Louvre / Vents	0-10v DC Output
7	Reheat Valve	0-10v DC Output
8	High Level Louvre / Vent	0-10v DC Output
9	Common	0v/Gnd

Note: Blocks B, C, & D are connected as above to the Respective Zone Room Unit.

Block E Connections

Terminal Block E	Function	Electrical Data
1	Power	+24v DC
2	Power	-0v DC/Gnd
3/4	Room Units Connections	Not-polarity sensitive from room units
5	GUI	From GUI E5
6	GUI	From GUI E6
7	Not Used	Not Used
8	GUI Bus+	From GUI E8
9	GUI Bus -	From GUI E9



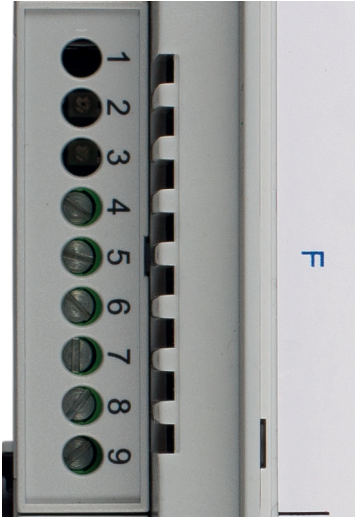
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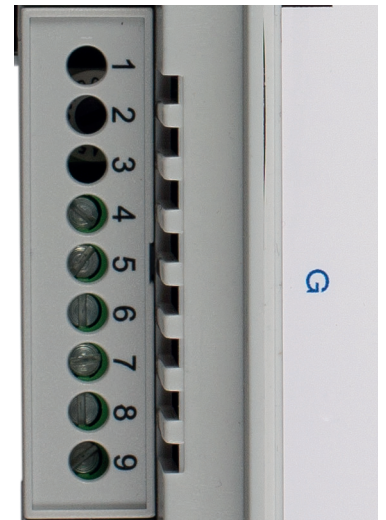


Zone F Connections

Terminal Block F	Function	Electrical Data
1,2, & 3	Not Used	N/A
4/5	OAT	NTC 10K
6	Fire Safety	VFC
7	Fireman's Switch	VFC
8	Common Gnd	0v Gnd
9	High Wind Rain Sensor	VFC

Block G Connections

Terminal Block G	Function	Electrical Data
1,2, & 3	Not Used	N/A
4	Zone A Fan	Output to remote relay coil
5	Common	+24v DC
6	Zone B Fan	Output to remote relay coil
7	Zone C Fan	Output to remote relay coil
8	Common	+24v DC
9	Zone D Fan	Output to remote relay coil



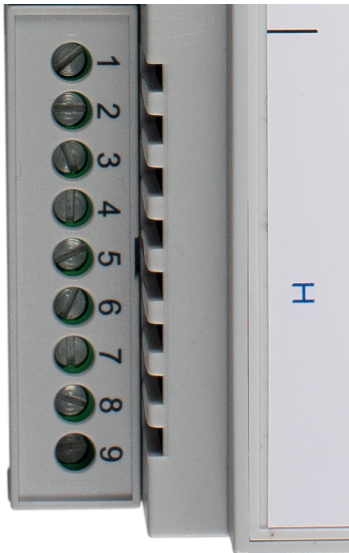
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Block H Connections

Terminal Block H	Function	Electrical Data
1	Zone A heating	Output to remote relay coil
2	Common	+24v DC
3	Zone B heating	Output to remote relay coil
4	Zone C Heating	Output to remote relay coil
5	Common	+24v DC
6	Zone D Heating	Output to remote relay coil
7	Common	+24v DC
8	Common	+24v DC
9	Heating Plant Call	Output to remote relay coil

Two core cable twisted pair outer screen typically (Beldon 8760). Connections non-polarity sensitive. From the *i-Con* main controller up to 8* *i-Con* NV Room Sensors can be connected. Preferred configuration - daisy chain.

i-Con NV Room Sensor device address rotary switch settings should be set to A, B, C or D.

Each device must have its own address as above and sensor addresses cannot be duplicated i.e. two A's.

Note:- Maximum of 8* *i-Con* NV Room Sensors can be connected to the main controller using a 2-core cable (Beldon 8760) or equivalent.

The *i-Con* NV Room Sensor can only be used with the *i-Con* control system.

*depending upon scheme



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